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ABSTRACT

Data on the academic performance of Washington State community college (CC) and four-year college transfers entering the University of Washington (UW) autumn quarters, 1973 to 1976, were studied. Students having attended more than one collegiate institution were eliminated, leaving samples of approximately 1,000 transfers for each quarter. Overall, the most consistent finding was the superior academic performance of the four-year transfers who had higher mean transfer and mean first-year UW grade point averages (GPAs) than CC transfers. In addition, when grouped according to number of transfer credits, those entering with greater than or equal to 75 credits achieved higher mean trarsfer and mean first-year UW GPAs than those having fewer than 75 credits. Data are also provided for comparable groups of UW "natives." (Author/MSE)

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First-Year University of Washington Performance of Transfers from Other Washington State Post-Secondary Institutions

Virginia A. de Wolf

Data on the academic performance of Washington State community college (CC) and four-year college transfers entering the University of Washington (UW) autumn quarters, 1973 to 1976, were studied. Students having attended more than one collegiate institution were eliminated, leaving samples of approximately 1,000 transfers for each quarter. Overall, the most consistent finding was the superior academic performance of the four-year transfers who had higher mean transfer and mean first-year UW GPAs than CC transfers. In addition, when grouped according to number of transfer credits, those entering with greater than or equal to 75 credits achieved higher mean transfer and mean first-year UW GPAs than those having fewer than 75 credits. Data is also provided for comparable groups of UW "natives".

Educational Assessment Center Project #524

First-Year University of Washington Performance of Transfers from

Other Washington State Post-Secondary Institutions

This report details an investigation of the "success" of transfer students from Washington State community colleges (CCs) entering the University of Washington (UW), a study undertaken at the request of the State Board for Community College Education. The impetus for the Board's request was the revision of UW undergraduate admissions to provide more equitable means for admitting freshmen, community college and four-year college transfers. The development of this new admissions system is described in Gillmore (Note 1). In brief, transfers were grouped according to the number of transfer credits (greater than or equal to 75 credits and fewer than 75 credits) and type of sending institution (two-year or four-year) with different prediction equations developed for each group.

In reviewing the revised admissions system, the State Board expressed concern with three aspects. The first issue was whether it was better to group CC transfers by number of credits earned (as above) or by whether the Associate of Arts degree had been completed or not. De Wolf (Note 2) addressed this question by studying the success of a sample entering the UW Autumn Quarter 1973 from seven Seattle area CCs. Two measures of UW "success" were employed: first-year and final UW grade point average (GPA). The prediction of either criterion was quite similar whether students were grouped by degree (with or without an Associate of Arts degree) or by academic transfer credits (75 or more credits versus fewer than 75 transfer credits). Thus, this report groups students according to number of transfer credits. This breakdown facilitates the comparison of CC transfers with students entering from four-year schools which do not award the Associate of Arts degree.

A second Board concern was the computation of the CC transfer GPA. Beginning with applications for Fall 1978 the UW altered the calculation of the transfer GPA to exclude non-academic coursework. Prior, the UW included in the transfer GPA and in the tally of transfer credits a maximum of 15 credits for work in "grey area" (vocational/technical) courses. Because prior CC transfer studies included such "grey area" coursework in the transfer GPA it was felt that such studies might give an inaccurate picture of the expected performance of CC transfers subject to the new rule.

Therefore, both de Wolf (Note 2) and the current study followed the 1977-1978 guidelines (Office of Admissions, Note 3) so that transfer credits and transfer GPA of CC students studied were based solely on academic coursework (physical education activity courses were also excluded from these computations).

The final question raised by the State Board concerned classification of incoming UW transfer students. While many students attend more than one post-secondary institution prior to applying to the UW, they have been classified solely on the basis of the most recent institution attended. Does this practice provide a misleading profile of transfers from a particular community college by lumping together two different groups of students: "purebreds" who had only attended that particular CC and "hybrids" who had attended a number of post-secondary institutions but whose last college prior to UW enrollment just happened to be that particular CC? Thus, a third major objective has been to eliminate "hybrids" from the student sample.

The current report is essentially an expanded version of deWolf's earlier report (Note 2). While this report will focus on only one of the UW "success" measures, first-year UW cumulative GPA, results are based on many more transfers. Students from all Washington State colleges, both two-year and four-year, who entered the University in each of four autumn quarters, 1973 to 1976, were studied. In addition, for those eight Seattle area CCs (Bellevue, Everett, Green River, Highline, North Seattle, Olympic, Seattle Central, and Shoreline) which send sizeable numbers of students performance was studied separately for each institution. Lastly, data will also be provided for four comparable samples of UW "natives", those students having entered the UW directly from a Washington State high school. The other "success" criteria studied in de Wolf (Note 2), that is, final undergraduate degree status and final undergraduate cum GPA, will become the foci of a later report. This forthcoming report will present a detailed look at the final undergraduate success of the autumn 1973 and autumn 1974 transfers from the eight community colleges mentioned above and also of the autumn 1973 and autumn 1974 transfers from all Washington State four-year colleges/universities.

Method

Sample. All transfer students entering the UW in Autumn Quarter of 1973, 1974, 1975, and 1976 from 26 two-year and 17 four-year colleges in Washington State comprised the group to be studied. Community colleges were divided into two groups, depending solely on the number of UW transfers having attended just that one particular CC. Those CCs having relatively large numbers of "one institution transfers" (that is, 35 or more such transfers in each of the entering groups studied) comprised the first CC subgroup, called the "big 8 CCs": Bellevue, Everett, Green River, Highline, North Seattle, Olympic, Seattle Central, and Shoreline. Collectively these 8 institutions provided about 70% of the one institution transfers in the four quarters studied. Separately, for each of the big 8 CCs, data will be provided for each entering group. As in de Wolf (Note 2), in order to maintain the confidentiality of the data, the identities of these 8 CCs have been masked using alphabetic designators. And throughout the current report the alphabetic designator of each CC will remain constant, for example, with Community College D referring to the same institution in all tables. Those 18 CCs having small numbers of one institution transfers (less than 35 in each quarter studied) comprised the other CC subgroup, called the "smaller CCs": Big Bend, Centralia, Clark, Columbia Basin, Edmonds, Fort Steilacoom, Grays Harbor, Lower Columbia, Peninsula, Skagit, South Seattle, Spokane, Spokane Falls, Tacoma, Walla Walla, Wenatchee, Whatcom, and Yakima. Data will not be provided separately for each of the CCs in this latter group due to the problems which arise from generalizing from statistics based on small samples. In fact, unless the number of one institution transfers from a CC in this group increased to over 35 and that increase remained constant for several transfer groups, the University may never be able to provide reliable summary statistics, on an individual basis, for these smaller CCs. The "4-year" group was made up of Central Washington State College, Eastern Washington State College, Evergreen State College, Fort Wright College, Gonzaga University, Northwest College, Pacific Lutheran University, St. Martin's College, Seattle Pacific University, Seattle University, Suplician Seminary of the Northwest,

University of Puget Sound, Walla Walla College, Washington State University, Western Washington State College, Whitman College, and Whitworth College.

Table 1 describes the samples of students entering each Autumn Quarter from 1973 to 1976, inclusive, who were still enrolled the following Spring Quarter. Approximately 1,600 transfers entered each autumn from 1973 to 1976. Transfers from the four-year colleges comprised about one-fourth of the total group of transfers in 1973, 1974, and 1975 but a slightly greater proportion, about one-third, of the 1976 transfers. Table 1 also reports the proportion of transfers from each collegiate group who had attended just one institution. Regardless of the category of the sending institution, i.e., big 8 CCs, smaller CCs, or 4-year colleges, about two-thirds of the students had attended just one institution. This proportion remained constant over the four years. The one institution transfers made up the sample whose UW performance was studied.

For the 8 individual CCs studied, the percentages of one institution transfers varied from a low of 41% for the 1974 transfers from Community College G to a high of 83% for the 1974 transfers from Community College B. Overall, community colleges B and E had the largest proportion of one institution transfers, while community colleges F and G had the lowest percentage of such transfers.

For comparison with the 1973 transfers a sample of 100 UW students (called the "UW natives") was selected using the following criteria: were enrolled in UW Autumn Quarter 1973; had earned between 80-100 UW credits prior to Autumn Quarter 1973; had graduated from a Washington State high school; and had not attended any other college between high school graduation and UW entrance. Native samples were also selected for the remaining three years using the same basic criteria as for the 1973 UW native sample but substituting the appropriate year, i.e., 1974, 1975, or 1976, in the selection criteria.

Variables. The transcripts of all one institution community college transfer students were examined and coursework considered to be "grey area" courses (vocational/technical) by the 1977-78 UW transfer guide (Office of Admissions, Note 3) were excluded from the computation of the total

Table 1. Number of Transfers Entering the UW Each Autumn Quarter From 1973 to 1976, Inclusive, Still in Attendance the Following Spring Quarter and Having Attended Just That One College, Separately for Each Collegiate Group

Collegiate Group		YEAR OF ENTRY 1973		1974		1975		1976	
		Total N	N (%) only one institution	Total N	N (%) only one institution	Total N	N (%) only one institution	Total N	N (%) only one institution
Big 8 Community Colleges:	Total	889	529 (60)	743	489 (66)	855	524 (61)	727	465 (64)
Community College A		126	63 (50)	134	65 (49)	117	69 (59)	116	72 (62)
Community College B		76	53 (70)	63	52 (83)	74	48 (65)	47	37 (79)
Community College C		74	46 (62)	68	47 (69)	64	48 (75)	69	43 (62)
Community College D		130	91 (70)	104	77 (74)	142	96 (68)	86	52 (60)
Community College E		75	55 (73)	54	42 (78)	62	48 (77)	59	43 (73)
Community College F		119	61 (51)	55	42 (76)	105	44 (42)	93	48 (52)
Community College G		82	49 (60)	85	35 (41)	100	46 (46)	88	44 (50)
Community College H		207	111 (54)	180	129 (72)	191	125 (65)	169	126 (75)
Smaller Community Colleges:	Total	344	234 (68)	343	231 (67)	375	255 (68)	317	197 (62)
Community College:	Total	1233	763 (62)	1085	720 (66)	1230	779 (63)	1044	662 (63)
4-Yr. College/University:	Total	415	267 (64)	418	247 (59)	459	267 (58)	499	300 (60)
TOTAL		1648	1030 (63)	1503	967 (64)	1689	1046 (62)	1543	962 (62)

number of academic transfer credits and the academic transfer GPA. As noted earlier, physical education activity courses were also excluded from these computations. In addition to the academic transfer credits and academic transfer GPA, the following data were also collected: sex, and UW cumulative credits and cumulative GPA (cum GPA) in the spring following UW entry (e.g., Spring Quarter 1974 for the 1973 Autumn Quarter transfers.) Transfer students were then divided into two groups based upon number of academic transfer credits: greater than or equal to (GE) 75 credits or less than (LT) 75 credits.

For the native samples the freshman-sophomore cumulative GPA (that is, the GPA earned prior to Autumn Quarter 1973, using the autumn 1973 native native sample as the example) was extracted from UW transcripts to parallel the academic transfer GPA. The UW junior year GPA (that is, the GPA earned between autumn 1973 and spring 1974, again using the 1973 UW natives as the example) was computed to parallel the first-year UW cumulative GPA used as the criterion for the transfers. The latter both represent academic work at the UW over the same three-quarter period.

Statistical analyses. The initial analyses provided a series of tables which profile each of the collegiate groups with respect to the proportion of males and females, the mean number of academic transfer credits, the mean number of credits earned at the UW in the first-year of enrollment, and the breakdown of each collegiate group by credit group. Then separately for each entering year of each collegiate group, the mean academic transfer GPA and mean UW first-year cumulative GPA were aggregated using the credit groups as the breakout variable.

Next, separately for each of the collegiate groups a regression equation was developed using academic transfer GPA as the predictor and first-year UW cumulative GPA as the criterion. This equation was of the following general form:

Predicted first-year UW cum GPA = a + (b)x (academic transfer GPA) where a was the additive constant and b the regression weight. For the natives a similar regression equation was developed, again separately for each native sample, where the combined freshman-sophomore cumulative GPA was the predictor and the junior-year cumulative GPA the criterion. This

was of the general form:

Predicted UW junior-year GPA = a + (b)x (freshman-sophomore cum GPA) where a was the additive constant and b the regression weight. Then each regression equation was used to obtain predicted first-year cumulative UW GPAs (or junior-year GPAs for the native samples) for 5 specific predictor GPAs (2.00, 2.25, 2.50, 2.75, and 3.00).

Separately for each transfer group and each native sample, the standard error of estimate (SE_{est}) was computed as follows:

$$SE_{est} = (SD_{criterion})x\ (1 - r^2)^{\frac{1}{2}}$$

where $SD_{criterion}$ represents the standard deviation of the criterion (i.e., first-year UW cumulative GPA for the transfers and junior-year cumulative GPA for the natives) and r the correlation between the predictor and the criterion (that is, the correlation between the academic transfer GPA and the first-year UW cumulative GPA for the transfers or the correlation between the combined freshman-sophomore GPA and the junior-year GPA for the natives).

Lastly, the probability of obtaining a 2.00 or higher GPA was computed using a Z score computation as follows:

$$Z = \frac{\text{Predicted UW GPA - 2.00}}{SE_{est}}$$

The Z values found by using the above equation, were then entered into a normal curve table, and the proportion of the total area to the right of the Z value corresponded to the desired probability.

Results

Table 2 presents the numbers of males and females in each collegiate group. The proportions of sexes from the community colleges differed from those from the four-year colleges. For the CCs about two-thirds of transfers were men while for the four-year schools the proportions of men and women were nearly equal.

Table 2. Number (N) and Percent (%) of Males and Females Separately for each College Group

Collegiate Group		YEAR OF ENTRY											
		1973			1974			1975			1976		
		Male N (%)	Female N (%)	Total N (%)	Male N (%)	Female N (%)	Total N (%)	Male N (%)	Female N (%)	Total N (%)	Male N (%)	Female N (%)	Total N (%)
Big 8 Community Colleges:	Total	352 (67)	177 (33)	529 (100)	310 (64)	177 (36)	487 (100)	335 (64)	189 (36)	524 (100)	278 (60)	186 (40)	464 (100)
Community College A		46 (73)	17 (27)	63 (100)	42 (67)	21 (33)	63 (100)	49 (71)	20 (29)	69 (100)	36 (50)	36 (50)	72 (100)
Community College B		37 (70)	16 (30)	53 (100)	31 (60)	21 (40)	52 (100)	32 (67)	16 (33)	48 (100)	26 (70)	11 (30)	37 (100)
Community College C		34 (74)	12 (26)	46 (100)	36 (77)	11 (23)	47 (100)	33 (69)	15 (31)	48 (100)	36 (84)	7 (16)	43 (100)
Community College D		59 (65)	32 (35)	91 (100)	53 (69)	24 (31)	77 (100)	57 (59)	39 (41)	96 (100)	29 (56)	23 (44)	52 (100)
Community College E		30 (55)	25 (45)	55 (100)	29 (69)	13 (31)	42 (100)	32 (67)	16 (33)	48 (100)	28 (67)	14 (33)	42 (100)
Community College F		38 (62)	23 (38)	61 (100)	21 (50)	21 (50)	42 (100)	25 (57)	19 (43)	44 (100)	23 (48)	25 (52)	48 (100)
Community College G		30 (61)	19 (39)	49 (100)	21 (60)	14 (40)	35 (100)	22 (48)	24 (52)	46 (100)	20 (45)	24 (55)	44 (100)
Community College H		78 (70)	33 (30)	111 (100)	77 (60)	52 (40)	129 (100)	85 (68)	40 (32)	125 (100)	80 (63)	46 (37)	126 (100)
Smaller Community Colleges:	Total	148 (63)	86 (37)	234 (100)	165 (71)	66 (29)	231 (100)	186 (73)	66 (26)	254 (100)	129 (66)	67 (34)	196 (100)
Community College:	Total	500 (66)	263 (34)	763 (100)	475 (66)	243 (34)	718 (100)	552 (67)	256 (33)	778 (100)	407 (62)	253 (38)	660 (100)
4-Yr. College/University:	Total	125 (47)	141 (53)	267 (100)	118 (48)	129 (52)	247 (100)	134 (51)	131 (49)	265 (100)	138 (46)	160 (54)	298 (100)

Note. Total Ns may be less than comparable figures in Table 1 due to computer processing errors.

For each collegiate group, Table 3 presents the mean (M) number of academic transfer credits and mean number of credits earned during the first year of study at the UW. CC transfers had a mean of approximately 81 academic transfer credits at time of entry for the 1973-1975, inclusive, groups and entered with slightly fewer credits (M = 76.2) in 1976. Mean transfer credits for the four-year college transfers were higher than the respective CC means in 1973 and 1974 but were just about equal in the latter two entry years. The decline in mean transfer credits is, in all probability, a reflection of changes in the UW's undergraduate admissions policy. In the earlier years encompassed by this study the University required transfer students to have at least 75 transfer credits at the time of entry and only certain special UW programs/colleges (for instance, pharmacy and engineering) admitted students with fewer than 75 transfer credits. However, in the latter years of the study this restriction was relaxed and undergraduate transfer students were considered for admission without regard to the number of transfer credits.

For the mean number of credits earned during the first year of study at the UW, Table 3 reports that CC transfers were quite consistent over the four years, earning an average of 37 credits. Four-year transfers, however, earned 2-3 more credits than their community college counterparts. Between the two CC subgroups a consistent difference in means was noted; the smaller CC subgroup having higher means than the big 8 CC subgroup. Lastly, among the body of CCs for which data was reported separately, Community College F not only had the lowest mean number of transfer credits but also had the lowest mean for number of credits earned in the first year of study at the UW.

Table 3 also included data for the four UW native samples. The mean number of credits earned during the freshman and sophomore years was about 90 and the mean number of credits earned during the junior year was approximately 40, close to the four-year transfer performance.

The breakdown of each collegiate group into the two entrance categories (GE 75 credits vs. LT 75 credits) is given in Table 4. For the total group of community college transfers in 1973 to 1975, inclusive, about three-fourths of the transfers were in the GE 75 credit group. In 1976

Table 3. Mean (M) Number of Transfer Credits and of Credits Earned in First Year at the University of Washington (1st-yr. UW)

Separately for each Collegiate Group

Collegiate Group		YEAR OF ENTRY															
		1973				1974				1975				1976			
		Transfer credits[a]		1st-yr. UW credits[b]		Transfer credits[a]		1st-yr. UW credits[b]		Transfer credits[a]		1st-yr. UW credits[b]		Transfer credits[a]		1st-yr. UW credits[b]	
		M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD
Big 8 Community Colleges:	Total	82.2	18.7	37.4	9.3	80.2	23.6	37.2	9.0	80.5	22.5	35.9	9.7	77.3	25.6	36.1	9.4
Community College A		79.9	16.3	37.0	9.7	80.3	20.5	37.8	8.9	78.6	19.1	35.8	10.1	72.6	20.3	36.2	8.7
Community College B		88.7	23.8	40.1	7.4	83.8	19.2	39.4	8.5	87.0	22.1	38.9	6.8	88.3	27.1	37.4	8.0
Community College C		83.9	17.0	38.6	10.5	86.1	22.0	39.5	8.2	85.9	15.6	38.3	7.1	73.4	26.4	34.2	9.8
Community College D		80.7	14.9	37.2	9.4	80.2	21.5	36.9	9.0	80.0	21.9	35.5	9.5	75.1	24.2	35.3	10.0
Community College E		86.5	16.2	38.3	8.6	83.5	24.0	38.7	10.5	85.8	18.8	39.6	7.9	84.3	25.8	41.0	5.8
Community College F		75.0	26.1	35.4	9.4	71.2	31.8	33.7	8.3	68.9	29.7	33.8	9.1	65.5	34.2	33.3	8.8
Community College G		81.6	26.5	36.5	8.7	73.7	31.2	35.3	7.8	78.5	20.7	32.3	11.2	74.8	24.1	33.4	11.1
Community College H		83.2	16.0	37.1	9.2	80.0	21.3	36.5	9.0	80.0	24.2	34.8	10.8	82.2	21.4	36.9	9.8
Smaller Community Colleges:	Total	78.7	22.7	38.5	8.8	82.9	22.5	38.7	8.6	84.8	21.5	38.2	7.7	73.8	30.3	38.6	8.2
Community College:	Total	81.2	20.1	37.7	9.1	81.0	23.2	37.7	8.9	81.9	22.3	36.7	9.2	76.2	27.2	36.8	9.2
4-yr. College/University:	Total	88.9	23.5	39.2	9.1	90.7	26.5	40.0	8.2	80.7	31.4	38.6	10.5	75.9	29.3	39.6	7.7
UW natives		92.2	4.5	40.6	9.8	93.3	6.7	37.5	11.2	92.3	4.5	40.0	10.1	89.3	5.9	39.9	9.8

[a]For the UW natives, this column contains the cumulative credits earned in the freshman and sophomore years.

[b]For the UW natives, this column contains the cumulative credits earned during the junior year.

Table 4. Entrance Category Separately for each Collegiate Group

Collegiate Group		YEAR OF ENTRY															
		1973			1974			1975			1976		
		GE 75 N (%)	LT 75 N (%)	Total N (%)	GE 75 N (%)	LT 75 N (%)	Total N (%)	GE 75 N (%)	LT 75 N (%)	Total N (%)	GE 75 N (%)	LT 75 N (%)	Total N (%)
Big 8 Community Colleges:	Total	413 (78)	116 (22)	529 (100)	365 (75)	124 (25)	489 (100)	387 (74)	137 (26)	524 (100)	309 (66)	156 (34)	465 (100)
Community College A		46 (73)	17 (27)	63 (100)	52 (80)	13 (20)	65 (100)	51 (74)	18 (26)	69 (100)	43 (60)	29 (40)	72 (100)
Community College B		44 (83)	9 (17)	53 (100)	41 (79)	11 (21)	52 (100)	38 (79)	10 (21)	48 (100)	27 (73)	10 (27)	37 (100)
Community College C		39 (85)	7 (15)	46 (100)	40 (85)	7 (15)	47 (100)	42 (88)	6 (13)	48 (100)	26 (60)	17 (40)	43 (100)
Community College D		66 (73)	25 (27)	91 (100)	55 (71)	22 (29)	77 (100)	69 (72)	27 (28)	96 (100)	33 (63)	19 (37)	52 (100)
Community College E		46 (84)	9 (16)	55 (100)	32 (76)	10 (24)	42 (100)	39 (81)	9 (19)	48 (100)	30 (70)	13 (30)	43 (100)
Community College F		44 (72)	17 (28)	61 (100)	27 (64)	15 (36)	42 (100)	26 (59)	18 (41)	44 (100)	23 (48)	25 (52)	48 (100)
Community College G		42 (86)	7 (14)	49 (100)	24 (69)	11 (31)	35 (100)	30 (65)	16 (35)	46 (100)	27 (61)	17 (39)	44 (100)
Community College H		86 (77)	25 (23)	111 (100)	94 (73)	35 (27)	129 (100)	92 (74)	33 (26)	125 (100)	99 (79)	26 (21)	125 (100)
Smaller Community Colleges:	Total	166 (71)	68 (29)	234 (100)	178 (77)	53 (23)	231 (100)	202 (79)	53 (21)	255 (100)	119 (60)	78 (40)	197 (100)
Community College:	Total	579 (76)	184 (24)	763 (100)	543 (75)	177 (25)	720 (100)	589 (76)	190 (24)	779 (100)	428 (65)	234 (35)	662 (100)
4-Yr. College/University:	Total	220 (82)	47 (18)	267 (100)	205 (83)	42 (17)	247 (100)	166 (62)	101 (38)	267 (100)	170 (57)	130 (43)	300 (100)

Note. Students were subdivided into two groups depending on the number of transfers credits earned at time of entry: Greater than or equal to (GE) 75 academic transfer credits or less than (LT) 75 academic transfer credits.

the proportion of those entering with LT 75 transfer credits rose and comprised about one-third of the total group of CC transfers. For the four-year transfers less than 20% of the 1973 and 1974 groups had less than 75 credits at the time of entry. This proportion jumped for the latter two years with 38% of the 1975 and 43% of the 1976 four-year transfers in the LT 75 credit group. As noted above, this change reflects a change in the UW undergraduate admissions policy, i.e., in the earlier years of this study the University greatly restricted the admissions of undergraduate transfer students having fewer than 75 credits at the time of entry.

Using the two credit groups as the breakout variable, Table 5 presents the mean academic transfer GPA and mean first-year UW cum GPA, separately for each collegiate transfer group. In addition, for each native sample the mean freshman-sophomore cum GPA and mean junior-year cum GPA are also presented. First, comparing the academic performance of these two credit groups, in general, for the CC transfers the GE 75 credit group had higher means than the LT 75 credit group for both the academic transfer GPA and the first-year UW GPA. For the four-year college transfers there was a similar difference in the mean first-year UW cum GPA (the GE 75 credit group earned higher UW grades than the LT 75 credit group), but no difference in their transfer GPAs. Overall, division of transfer students into these two credit groups yielded relatively good differentiation, membership in the lower credit group related to lower GPAs, especially lower first-year UW GPAs. When the drop between the mean transfer GPA and the mean first-year UW GPA is examined, one notes that this drop was relatively more severe for the CC transfers than for the four-year transfers: GPAs for the CC transfers drop about .40 while GPAs for four-year transfers fall off by less than .10.

Lastly, Table 5 can give some insight into the performance of the individual CCs comprising the big 8 subgroup. Two findings appear. Community College D transfers suffered less of a drop in mean GPA than transfers from the other CCs comprising the big 8 (.25 as against .40). Community College F was the only other CC to demonstrate a consistent pattern. Community College F's mean transfer GPA and mean first-year UW

Table 5. Mean (M) Academic Transfer GPA and Mean Cumulative GPA Earned at the University of Washington During First Year of Attendance (1st-Yr. UW) Separately for Each Collegiate Group

Collegiate Group	Credit Group	YEAR OF ENTRY																			
		1973					1974					1975					1976				
		N	Transfer GPA[a]		1st-yr. GPA[b] UW		N	Transfer GPA[a]		1st-yr. GPA[b] UW		N	Transfer GPA[a]		1st-yr. GPA[b] UW		N	Transfer GPA[a]		1st-yr. GPA[b] UW	
			M	SD	M	SD		M	SD	M	SD		M	SD	M	SD		M	SD	M	SD
Big 8 Community Colleges: Total	GE 75	413	3.12	.46	2.78	.65	365	3.16	.47	2.76	.67	387	3.21	.44	2.77	.63	309	3.28	.45	2.85	.55
	LT 75	116	3.02	.62	2.68	.68	124	2.85	.66	2.59	.62	137	2.87	.70	2.47	.77	156	2.98	.62	2.54	.67
	Total	529	3.10	.50	2.75	.65	489	3.08	.54	2.72	.66	524	3.12	.54	2.69	.68	465	3.17	.53	2.74	.61
Community College A	GE 75	46	3.16	.48	2.79	.67	52	3.08	.48	2.71	.74	51	3.28	.42	2.84	.53	43	3.28	.42	2.96	.47
	LT 75	17	3.07	.55	2.50	.70	13	3.00	.50	2.54	.39	18	2.95	.61	2.48	.79	29	3.18	.41	2.54	.55
	Total	63	3.14	.50	2.71	.69	65	3.07	.49	2.67	.69	69	3.19	.49	2.75	.63	72	3.24	.42	2.79	.55
Community College B	GE 75	44	2.96	.47	2.65	.55	41	3.17	.46	2.91	.51	38	3.22	.43	2.87	.57	27	3.17	.53	2.81	.71
	LT 75	9	2.99	.44	2.99	.60	11	3.01	.69	2.95	.72	10	3.05	.70	2.45	.80	10	2.76	.29	2.37	.36
	Total	53	2.96	.46	2.70	.57	52	3.14	.53	2.92	.56	48	3.19	.50	2.78	.65	37	3.06	.51	2.69	.66
Community College C	GE 75	39	3.25	.35	2.87	.61	40	3.31	.42	2.86	.66	42	3.36	.39	2.66	.70	26	3.36	.35	2.81	.46
	LT 75	7	3.11	.52	3.11	.60	7	2.57	.47	2.26	.79	6	3.12	.41	2.51	.66	17	2.96	.43	2.63	.53
	Total	46	3.23	.38	2.91	.61	47	3.20	.51	2.77	.71	48	3.33	.40	2.64	.70	43	3.21	.43	2.74	.50
Community College D	GE 75	66	3.04	.42	2.88	.57	55	3.18	.55	2.98	.67	69	3.17	.42	2.87	.66	33	3.17	.57	2.84	.64
	LT 75	25	3.14	.44	2.78	.65	22	2.59	.80	2.39	.47	27	2.89	.62	2.70	.73	19	2.98	.72	2.64	.85
	Total	91	3.07	.43	2.85	.60	77	3.01	.68	2.81	.68	96	3.09	.50	2.82	.68	52	3.10	.63	2.77	.73
Community College E	GE 75	46	3.17	.51	2.80	.67	32	3.19	.49	2.89	.58	39	3.26	.44	2.78	.54	30	3.28	.44	2.94	.52
	LT 75	9	3.21	.70	2.77	.69	10	2.61	.59	2.51	.43	9	2.27	.49	1.91	.46	13	3.02	.77	2.63	1.00
	Total	55	3.18	.55	2.79	.67	42	3.05	.57	2.81	.58	48	3.07	.59	2.62	.62	43	3.20	.57	2.84	.71

Table 5 (cont'd)

Collegiate Group	Credit Group	YEAR OF ENTRY																			
		1973					1974					1975					1976				
		N	Transfer GPA[a]		1st-yr. GPA[b]	UW	N	Transfer GPA[a]		1st yr. GPA[b]	UW	N	Transfer GPA[a]		1st-yr. GPA[b]	UW	N	Transfer GPA[a]		1st-yr. GPA[b]	UW
			M	SD	M	SD		M	SD	M	SD		M	SD	M	SD		M	SD	M	SD
Community College F	GE 75	44	3.14	.49	2.66	.85	27	3.25	.45	2.71	.86	26	3.08	.52	2.66	.65	23	3.16	.31	2.72	.54
	LT 75	17	2.76	.94	2.60	.58	15	2.73	.66	2.54	.55	18	3.04	.58	2.56	.78	25	2.83	.79	2.43	.51
	Total	61	3.04	.67	2.64	.78	42	3.07	.57	2.65	.77	44	3.07	.54	2.62	.70	48	2.99	.63	2.57	.54
Community College G	GE 75	42	3.14	.40	2 79	.59	24	2.98	.55	2.51	.56	30	2.95	.44	2.52	.64	27	3.15	.58	2.87	.56
	LT 75	7	2.71	.29	2.46	.55	11	3.14	.61	2.87	.64	16	2.77	.53	2.63	.88	17	2.99	.56	2.52	.82
	Total	49	3.08	.42	2.75	.60	35	3.02	.57	2.62	.61	46	2.89	.48	2 56	.74	44	3.09	.58	2.73	.70
Community College H	GE 75	86	3.15	.45	2.76	.62	94	3.12	.38	2.60	.59	92	3.25	.40	2.78	.65	99	3.32	.40	2.82	.53
	LT 75	25	3.05	.56	2.54	.70	35	3.02	.57	2.63	.66	33	2.82	.89	2.30	.67	26	2.95	.65	2.56	.57
	Total	111	3.13	.48	2.71	.64	129	3.10	.44	2.61	.61	125	3.14	.60	2.66	.69	125	3.25	.48	2.76	.55
Smaller Community Colleges: Total	GE 75	166	3.16	.52	2.84	.61	178	3.17	.49	2.76	.65	202	3.22	.46	2.72	.63	119	3.25	.47	2.81	.53
	LT 75	68	3.00	.64	2.63	.73	53	2.94	.66	2.64	.76	53	3.03	.51	2.43	.58	78	3.03	.67	2.67	.68
	Total	234	3.11	.56	2.78	.65	231	3.12	.55	2.73	.68	255	3.18	.47	2.66	.63	197	3.16	.57	2.77	.60
Community College: Total	GE 75	579	3.13	.47	2.79	.64	543	3.16	.48	2.76	.66	589	3.22	.44	2.75	.63	428	3.26	.46	2.84	.55
	LT 75	184	3.01	.63	2.66	.70	177	2.88	.66	2.60	.66	190	2.91	.66	2.46	.72	234	3.00	.64	2.58	.67
	Total	763	3.11	.52	2.76	.65	720	3.09	.54	2.72	.66	779	3.14	.52	2.68	.67	662	3.17	.54	2.75	.61
4-Yr. College/University: Total	GE 75	220	3.00	.47	2.96	.62	205	3.02	.46	3.05	.60	166	3.00	.43	3.00	.57	170	3.08	.47	3.02	.51
	LT 75	47	3.01	.48	2.90	.53	42	3.02	.49	2.81	.62	101	3.03	.58	2.83	.64	130	3.07	.52	2.92	.53
	Total	267	3.00	.48	2.95	.60	247	3.02	.46	3.01	.61	267	3.01	.49	2.93	.60	300	3.07	.49	2.98	.52
UW Natives	-----	100	3.17	.39	3.16	.54	100	3.12	.43	3.13	.61	100	3.20	.40	3.18	.50	100	3.02	.51	3.00	.64

[a]For the UW natives, this column contains the freshman-sophomore GPA.

[b]For the UW natives, this column contains the junior-year GPA.

GPA were both lower than the corresponding means for the total big 8 group over all 4 years. The drop, however, was only slightly greater than .40.

The final presentation, Table 6, contains the predicted first-year UW cum GPA (GPA') and the associated probabilities of obtaining at least a 2.00 UW cum GPA (P) for 5 predictor GPAs (transfer GPAs of 2.00, 2.25, 2.50, 2.75, and 3.00), separately for each collegiate group. Similar data are also presented for the UW natives where GPA' is the predicted junior-year GPA and the combined freshman-sophomore GPA the predictor. In addition, the correlation (r) between the predictor GPA and the criterion GPA (i.e., for the transfers, the correlation between the transfer GPA and the first-year UW cum GPA; and for the natives, the correlation between the freshman-sophomore GPA and the junior-year GPA) and the standard error of estimate (SE_{est}) are also presented for each group.

When considering just the two CC groups, Table 6 reveals that the predicted performance of both the big 8 CC group and the smaller CC group is quite similar. A transfer GPA of 2.5, for example, predicts a 2.3 at UW while a 3.0 predicts a 2.65. The four-year transfers had higher predicted GPAs than did either CC group, the 2.5 and 3.0 yielding prediction of 2.6 and 2.95. Predictions for the four-year transfers are very nearly the same as for the native group. Correlations, with a few exceptions, were high. The data do suggest that, with the possible exception of 1976 data, natives are more accurately predicted than are four-year transfers. The four-year transfers, in turn, are more accurately predicted than the two-year transfers. This ordering is based on the size of the standard errors of estimate, SE_{est}.

As for the eight CCs for which data were reported separately, the low drop in GPA for Community College D transfers is confirmed by the prediction study results. While a 3.0 predicts a 2.65 for the typical CC transfer it is more nearly predictive of a 2.75 for the Community College D transfer. For other colleges there is considerable year to year variability and the reader needs to be cautious especially when the correlation is low as it was for College C in 1973 and for College F in 1976.

Table 6. Predicted First-Year UW GPA[b] (GPA') and Associated Probability of Obtaining a 2.00 GPA or Higher (P) Separately for Each Collegiate Group

Year of Entry	Predictor GPA[a]	Community College Group								-Big 8- Total		-Smaller- Total		-Total-		4-Year Colleges		UW Natives	
		----A---		----B---		----C---		----D---		----E---		----F---		----G---		----H---									
		GPA'	P	GPA'	P	GPA'	P	GPA'	P	GPA'	P	GPA'	P	GPA'	P	GPA'	P	GPA'	P	GPA'	P	GPA'	P	GPA'	P
	2.00	1.70	.28	2.04	.53	2.48	.79	2.01	.51	1.90	.42	2.08	.55	1.61	.18	1.70	.27	1.93	.45	1.97	.48	1.95	.46	2.24	.68	2.15	.63
	2.25	1.93	.45	2.22	.68	2.57	.83	2.21	.67	2.09	.57	2.21	.62	1.87	.38	1.92	.57	2.12	.59	2.15	.62	2.13	.60	2.42	.80	2.37	.81
1973	2.50	2.15	.61	2.39	.79	2.65	.86	2.40	.79	2.28	.70	2.35	.70	2.13	.62	2.14	.61	2.31	.72	2.33	.74	2.31	.72	2.60	.88	2.58	.91
	2.75	2.37	.76	2.56	.88	2.74	.89	2.60	.89	2.47	.81	2.49	.76	2.39	.82	2.37	.78	2.49	.82	2.51	.84	2.50	.83	2.77	.94	2.79	.97
	3.00	2.59	.87	2.73	.94	2.83	.92	2.80	.95	2.66	.89	2.63	.82	2.65	.94	2.59	.89	2.68	.90	2.69	.91	2.68	.90	2.95	.97	3.01	.99
	R	.6450		.5539		.2191		.5720		.6192		.4694		.7004		.6586		.5660		.6268		.5852		.5593		.6075	
	SE_{EST}	.5292		.4783		.5967		.4899		.5259		.6921		.4259		.4847		.5394		.5076		.5299		.4989		.4317	
	2.00	1.69	.28	2.17	.65	1.71	.30	2.14	.61	2.14	.62	1.98	.49	1.95	.46	1.64	.23	1.93	.45	1.69	.25	1.85	.39	2.14	.61	1.88	.37
	2.25	1.92	.44	2.33	.77	1.93	.45	2.31	.73	2.30	.75	2.14	.58	2.10	.58	1.86	.39	2.11	.58	1.92	.43	2.05	.54	2.35	.77	2.16	.66
1974	2.50	2.15	.61	2.50	.87	2.15	.61	2.48	.83	2.46	.85	2.30	.67	2.25	.70	2.08	.56	2.29	.71	2.15	.63	2.25	.69	2.56	.88	2.43	.87
	2.75	2.38	.76	2.66	.93	2.37	.75	2.64	.90	2.62	.92	2.46	.75	2.41	.81	2.30	.73	2.48	.82	2.38	.79	2.45	.81	2.76	.95	2.71	.97
	3.00	2.62	.88	2.83	.97	2.60	.86	2.81	.95	2.77	.96	2.63	.83	2.56	.88	2.52	.86	2.66	.89	2.61	.91	2.65	.90	2.97	.98	2.99	1.00
	R	.6474		.6209		.6314		.6716		.6277		.4807		.5892		.6089		.5982		.7326		.6419		.6278		.7846	
	SE_{EST}	.5301		.4410		.5505		.6021		.4488		.6673		.4752		.4896		.5279		.4629		.5104		.4760		.3790	
	2.00	1.68	.24	1.53	.11	1.15	.06	1.80	.34	1.87	.39	1.65	.25	1.82	.39	2.16	.60	1.86	.40	1.73	.30	1.82	.37	2.24	.69	2.16	.67
	2.25	1.90	.41	1.79	.29	1.43	.14	2.03	.52	2.04	.54	1.88	.41	2.03	.52	2.27	.66	2.05	.54	1.92	.44	2.01	.51	2.41	.80	2.37	.84
1975	2.50	2.13	.62	2.06	.56	1.71	.29	2.27	.71	2.22	.68	2.10	.58	2.24	.65	2.38	.72	2.23	.66	2.12	.59	2.20	.64	2.58	.88	2.58	.94
	2.75	2.35	.79	2.32	.80	1.99	.49	2.50	.84	2.39	.80	2.33	.74	2.44	.76	2.49	.78	2.41	.77	2.31	.73	2.38	.76	2.75	.94	2.80	.99
	3.00	2.57	.90	2.58	.94	2.27	.69	2.73	.93	2.57	.89	2.56	.86	2.65	.85	2.59	.82	2.60	.86	2.51	.84	2.57	.85	2.92	.97	3.01	1.00
	R	.7100		.8097		.6427		.6871		.6663		.6936		.5399		.3811		.5834		.5906		.5828		.5660		.6853	
	SE_{EST}	.4401		.3819		.5361		.4963		.4648		.5129		.6190		.6395		.5553		.5065		.5413		.4839		.3644	

Table 6 continued

Year of Entry	Predictor GPA[a]	Community College Group																4-Year Colleges		UW Natives	
		----A---		----B---		----C---		----D---		----E---		----F---		----G---		----H---		-Big 8- Total		-Smaller- Total		-Total-					
		GPA'	P	GPA'	P	GPA'	P	GPA'	P	GPA'	P	GPA'	P	GPA'	P	GPA'	P	GPA'	P	GPA'	P	GPA'	P	GPA'	P	GPA'	P
1976	2.00	1.93	.44	1.75	.31	2.00	.50	2.04	.53	1.67	.23	2.31	.73	1.86	.39	1.89	.40	1.96	.47	2.05	.54	1.99	.49	2.32	.78	2.34	.73
	2.25	2.10	.59	1.97	.48	2.16	.64	2.21	.64	1.92	.43	2.38	.77	2.06	.55	2.06	.56	2.13	.60	2.20	.66	2.15	.62	2.48	.87	2.50	.82
	2.50	2.28	.73	2.20	.66	2.31	.77	2.37	.73	2.16	.64	2.44	.80	2.26	.69	2.23	.70	2.30	.73	2.35	.76	2.31	.74	2.63	.93	2.66	.89
	2.75	2.45	.83	2.42	.81	2.46	.86	2.54	.81	2.41	.82	2.51	.84	2.46	.81	2.41	.82	2.46	.82	2.50	.85	2.48	.83	2.78	.97	2.83	.93
	3.00	2.63	.91	2.64	.90	2.62	.93	2.70	.88	2.65	.93	2.57	.86	2.66	.90	2.58	.91	2.63	.90	2.65	.91	2.64	.90	2.93	.99	2.99	.96
	R	.5327		.6798		.5230		.5672		.7827		.2997		.6659		.6024		.5840		.5670		.5785		.5779		.5173	
	SE_{EST}	.4651		.4867		.4275		.6056		.4446		.5183		.5187		.4393		.4981		.4861		.4949		.4222		.5475	

[a]For the community college and four-year college transfers, the predictor GPA was the transfer GPA and for the UW natives the predictor GPA was the combined freshman-sophomore GPA.

[b]For the community college and four-year college transfers the criterion was the first-year UW cumulative GPA and for the natives the junior-year GPA.

Discussion

Before summarizing the wealth of data contained in the current report, a few caveats are in order. First, since data analyses were based only on "purebred" transfers (those having attended just one Washington State college prior to entering the University), caution is advised in generalizing results of these analyses to multiple institution transfers (i.e., those having attended several collegiate institutions prior to UW entry). Second, it is important to keep in mind that the UW's undergraduate admissions policy changed during the period covered in the current study (that is, in the earlier years entry of transfer students with less than 75 credits was restricted to certain colleges/programs) and, such being the case, it is highly probable that the four groups studied are composed of different mixes of transfers with respect to field of study, particularly those entering with fewer than 75 transfer credits. Lastly, not only are students from a particular transfer source heterogeneous with respect to collegiate major thay are also heterogeneous with respect to undergraduate class.

Overall, the most consistent finding was the superior academic performance of the four-year transfers when contrasted with that of the community college transfers. The first-year UW mean GPA of the four-year transfers was higher than the corresponding CC mean and the mean transfer GPA lower than the comparable CC mean. Thus, the difference between mean transfer GPA and mean first-year UW GPA was less for the four-year transfers than for the CC transfers. Results of the prediction study also support the superiority of the four-year college transfers where the probability of obtaining a first-year UW cum GPA of at least a 2.00 was much higher for the four-year transfers than the associated probability for the community college transfers. For example, for the lowest predictor GPA of 2.00, the four-year transfers' predicted GPA never dropped below 2.14, while that of the CC transfers was always less than 2.00. In fact, the performance of the four-year college transfers was at least as strong as that of the UW natives.

When a comparison was made between the two community college groups,

the profiles of both the big 8 CCs and the smaller CCs were nearly identical. Nearly 2/3's of the transfers from each CC subgroup had attended just one particular community college prior to UW entry. In addition, the breakdown of transfers into two credit groups yielded equivalent proportional divisions for both CC groups, that is, about 25% of the 1973, 1974, and 1975 CC transfers entered with fewer than 75 transfer credits and this proportion increased by an additional 15 percentage points for the 1976 CC transfers. In general, the mean transfer GPA and mean first-year UW GPA for the GE 75 credit group were higher than the corresponding means for the LT 75 credit group. Lastly, the predicted first-year UW GPAs of the big 8 CC group paralleled those of the smaller CC subgroup.

Now, turning to the community colleges for which data were presented separately. The eight CCs differed among themselves in a number of ways. For instance, Community College D was unique in that it was the only CC among these 8 CCs whose first-year UW cum GPA was higher than the comparable mean for the big 8 subgroup. In addition, Community College D's mean transfer GPA was lower than the comparable big 8 subgroup mean. Thus, for Community College D the calibre of its UW transfers was consistent over the four years. Not only did the big 8 CCs differ among themselves, but one of the more interesting facts raised by the current study is that oft-times a particular CC differed dramatically from one year to the next. Obviously, this variability makes generalizations hazardous. One suggested approach to explain this enigma would be for the individual CCs to examine the composition of their UW transfers in order to account for such differing levels of performance.

In sum, this current study lends support to the University's current undergraduate admissions policy for collegiate transfers as explained in Gillmore (Note 1): Four-year college transfers should be evaluated separately from community college transfers, since data in this current report demonstrated that the first-year UW performance of these two collegiate sources differed with four-year college transfers superior to community college transfers; and, in addition, the continued use of 75 credits as the point of demarcation within each collegiate source is also supported, since the LT 75 credit group consistently achieved lower mean

first-year UW GPA than the GE 75 credit group. It is strongly suggested that the current study be replicated in the future, perhaps after the undergraduate admissions policy outlined in Gillmore has been effect for several years. The performance of the undergraduate transfer student at the University is an important issue which has received little attention up to the present. Only by collecting additional data for several cohorts of transfer students, entering the UW under the same admissions policy, can accurate trends be noted and, with such knowledge in hand, can the University better serve its undergraduate transfer student population.

Reference Notes

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